

ABSTRACT OF THE DISCLOSURE

In an integrated circuit device, element power supply lines connected to a circuit containing a plurality of cells, element ground lines connected thereto, a trunk power supply line connected to each of the element power supply lines, and a trunk ground line connected to each of the element ground lines are provided in a first wiring layer. A branch power supply line connected to the trunk power supply line and a branch ground line connected to the trunk ground line are provided in an upper wiring layer located above the first wiring layer. A wiring structure is determined based on a wiring structure equation expressing the relations among a voltage drop in the lines, the area occupied thereby, and a current consumed thereby and on a circuit characteristic equation expressing, when the circuit is subdivided while the ratio between the area of the circuit and a current consumed thereby is held constant, the relation between an area occupied by a circuit resulting from subdivision and a current consumed thereby.